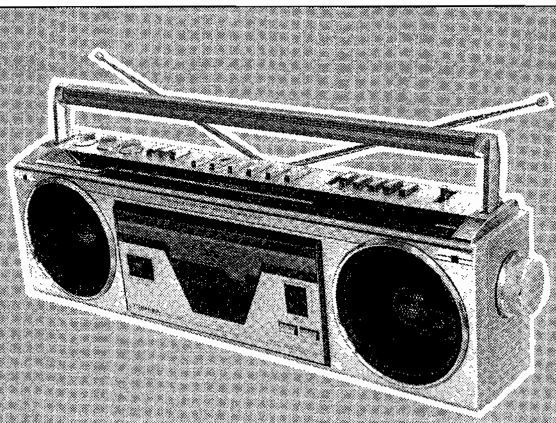
fach XG 313

480

SERVICE DATA
FILE NO. 110-288

TOSHIBA
STEREO RADIO CASSETTE RECORDER
RT-S652



SPECIFICATIONS

Cassette tape used:	Normal: C-30, C-60, C-90, C-120 Chrome: C-45, C-60, C-90 Metal: C-46, C-60, C-90
Tape speed:	4.8 cm/sec.
Track system:	Four-track two-channel stereophonic
Recording system:	AC bias (85 kHz)
Erasing system:	Multipolar magnet erasing
Frequency response:	Normal: 60 Hz to 10 kHz Metal: 60 Hz to 14 kHz
Receiving frequency:	FM: 88 MHz to 108 MHz SW: 5.9 MHz to 15.4 MHz MW: 525 kHz to 1605 kHz LW: 145 kHz to 270 kHz
Intermediate frequency:	FM: 10.7 MHz LW, MW, SW: 460 kHz
Antenna:	FM, SW: telescopic antenna LW, MW: ferrite-core antenna

Speakers:	100 mm (dia.) dynamic x 2 20 mm (dia.) piezo-electric type x 2
Jacks:	[MIC] jack x 2, Impedance 200 to 2K ohm [REC/PB] jack x 1 [EXT SP] jack x 2, Impedance 3.2 to 8 ohm [PHONES] jack x 2
Power Output:	2.3W + 2.3W 10% Distortion
Power supply:	AC 220V, 50 Hz (When using the accessory AC adaptor) DC 9V (SUM-2 "C" size x 6) External DC Power DC 9V (5.0 mm dia.) Centre pin ---- Positive pole
Dimensions (W x H x D):	440 x 125 x 88 (mm)
Weight:	2.25 kg (without batteries)

Specifications are subject to change without notice.

TE, TU, IT

480

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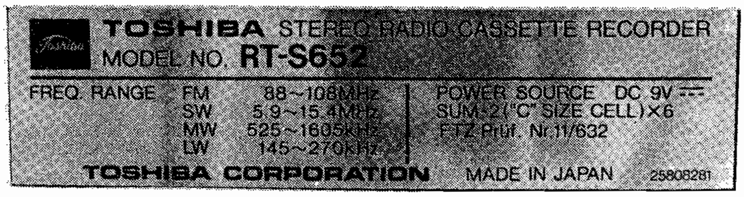
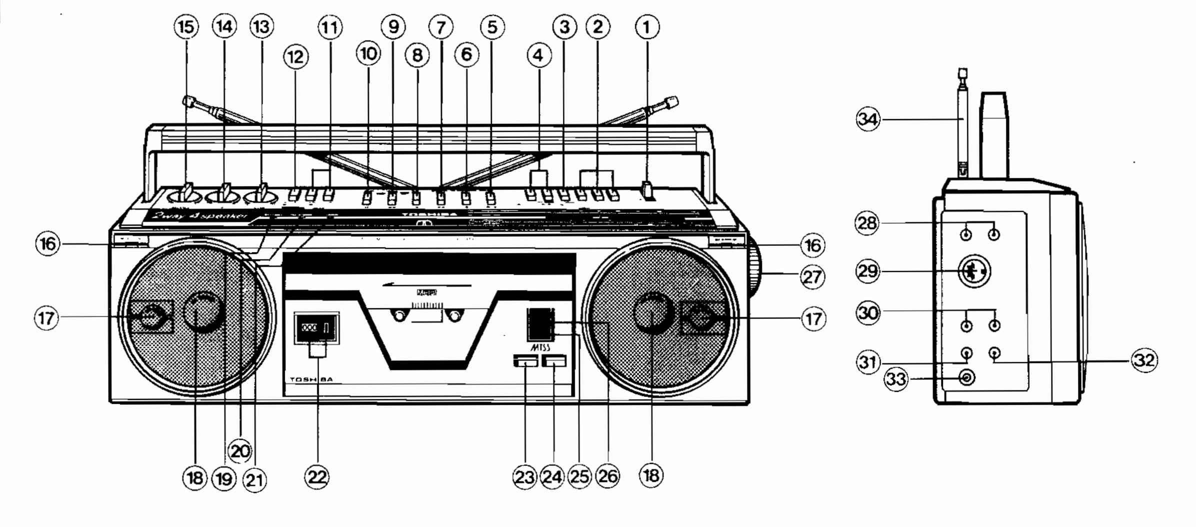
Nameplate



TOSHIBA STEREO RADIO CASSETTE RECORDER
MODEL NO. RT-S652
FREQ. RANGE FM 88~108MHz
SW 5.9~15.4MHz
MW 525~1605kHz
LW 145~270kHz
POWER SOURCE DC 9V ⎓
SUM-2("C" SIZE CELL)×6
FTZ Prüf. Nr.11/632
TOSHIBA CORPORATION MADE IN JAPAN 25808281

1. OPERATING CONTROLS

CONTROL FUNCTIONS



① **[AM BAND] Selector**

② **[FUNCTION] Selector**

③ **FUNCTION [ON-OFF/TAPE] Selector.**

Note: When the accessory AC adaptor is used, it will be left powered even when the [FUNCTION] selector of the recorder is set to OFF/TAPE.
When the recorder is not to be used, be sure to unplag the AC adaptor from its outlet.

④ **[TAPE] Selector**

	[TAPE] selector	
	CrO_2	METAL
METAL	⊓	▭
CrO_2	▭	⊓
NORMAL	⊓	⊓

Note: If the [Metal] button is left depressed, the CrO_2, NORMAL position will not be selected even when the [CrO_2] button is pressed.

⑤ **[■/≜STOP/EJECT] Button**

⑥ **[●ONE TOUCH RECORD] Button**

⑦ **[⏩ REVIEW/REW] Button**

⑧ **[◀PLAY] Button**

⑨ **[⏪ FF/CUE] Button**

⑩ **[II PAUSE] Button**

⑪ **[MODE/BEAT] Selector**

	[MODE/BEAT] selector	
	MONO	STEREO-WIDE
MONO	▭	⊓
STEREO	⊓	⊓
STEREO-WIDE	⊓	▭

Note: If [MONO] button is left depressed, the STEREO, STEREO-WIDE mode will not be selected even when the [STEREO-WIDE] button is activated.

⑫ **[LOUDNESS] Button**
When listening to low level sound, press this button. The treble and bass tones are amplified to give a more natural sound.

⑬ **[VOLUME] Control**

⑭ **[TONE] Control**

⑮ **[BALANCE] Control**

⑯ **Built-in Microphones**

⑰ **Tweeters (Speakers for high-pitched sound)**

⑱ **Woofers (Speakers for low to mid-range sound)**

⑲ **[BATTERY] Indicator**

⑳ **[FM STEREO] Indicator**

㉑ **[TUNING] Indicator**

㉒ **Tape Counter and Counter Reset Button**

㉓ **MTSS [SET] Button**

㉔ **MTSS [RESET/EDITOR] Button**

㉕ **[REC] Indicator**

㉖ **[MTSS] Indicator**

㉗ **Tuning Knob**

㉘ **[MIC] Jacks**
Microphones with 3.5 mm plugs

㉙ **[REC/PB] Jack**

㉚ **[EXT SPEAKER] Jacks**
Input impedance from 3.2 to 8 ohm

㉛ **[PHONES] [1] Jack**

㉜ **[PHONES] [2] Jack**

㉝ **[DC 9 V] Jack**
When accessory AC adaptor is to be used, connect it to this jack.

㉞ **Telescopic Antenna**

2. DISASSEMBLY INSTRUCTIONS

FRONT CABINET REMOVAL

1. Pull out the Tuning and Fine Tuning Knobs.
2. Unscrew two screws Ⓐ and five screws Ⓑ. Fig. 1.
3. Open the cassette cover by pressing the Stop/Eject button.
4. Disconnect the speaker and MQJS connectors to separate the Front Cabinet from the Back Cabinet.
5. Reassemble in the reverse order.

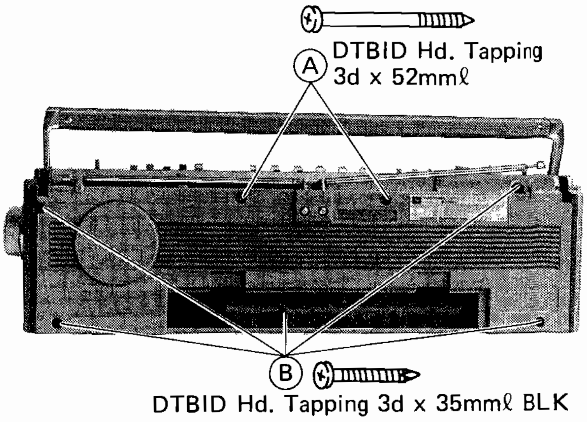

Ⓐ DTBID Hd. Tapping 3d x 52mmℓ
Ⓑ
DTBID Hd. Tapping 3d x 35mmℓ BLK

Figure 1.

CASSETTE MECHANISM ASS'Y REMOVAL

1. Follow the instruction for Front Cabinet Removal.
2. Unscrew one screw Ⓒ. Fig. 2.
3. Diconnect the Motor and the Head connectors Ⓓ. Fig. 2.
4. Take off the Cassette Mechanism Ass'y from the Back Cabinet.
5. Reassemble in the reverse order.

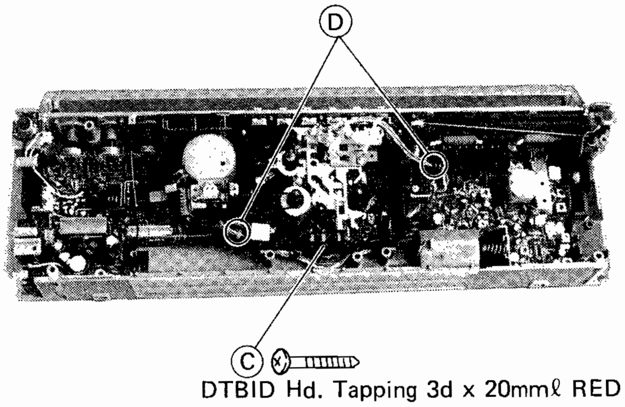

Ⓓ
Ⓒ
DTBID Hd. Tapping 3d x 20mmℓ RED

Figure 2.

MAIN P.C. BOARD REMOVAL

1. Follow the instruction for Front Cabinet Removal.
2. Pull out the Balance, Tone, Volume, Loudness, Mode, Tape Selector, Function and Band Switch Knobs.
3. Remove the spring Ⓔ. Fig. 3.
4. Unscrew four screws Ⓕ and two screws Ⓖ. Fig. 3.
5. Pull up the Main P.C. Board from the Back Cabinet.
6. Reassemble in the reverse order.

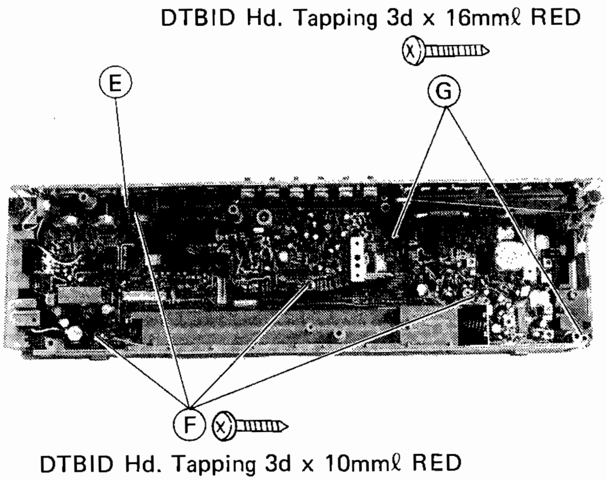

DTBID Hd. Tapping 3d x 16mmℓ RED
Ⓔ
Ⓖ
Ⓕ
DTBID Hd. Tapping 3d x 10mmℓ RED

Figure 3.

3. ALIGNMENT INSTRUCTIONS

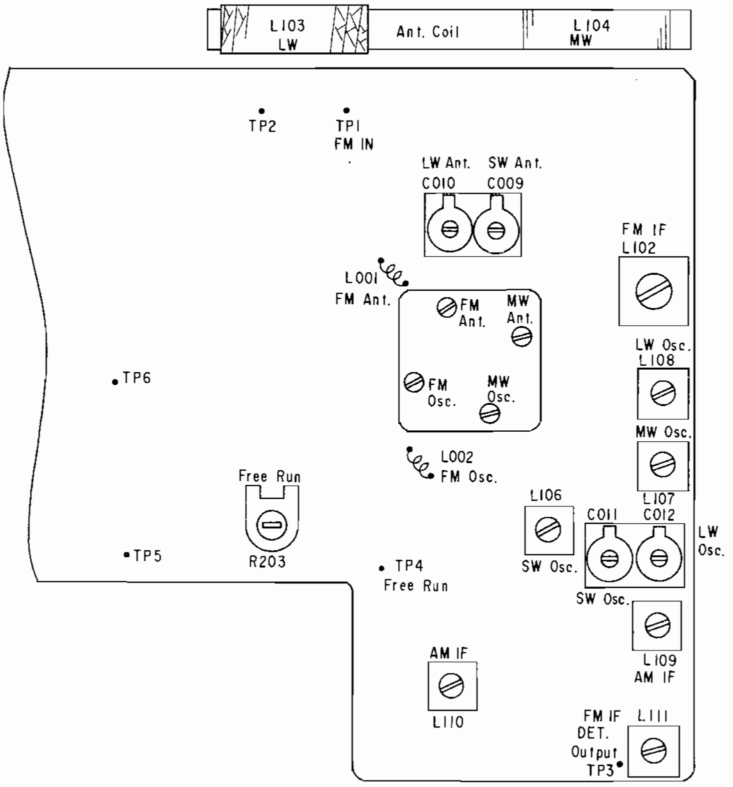

L103
LW
Ant. Coil
L104
MW
TP2
TP1
FM IN
LW Ant.
C010
SW Ant.
C009
FM IF
L102
L001
FM Ant.
FM
Ant.
MW
Ant.
LW Osc.
L108
TP6
FM
Osc.
MW
Osc.
MW Osc.
L002
FM Osc.
Free Run
R203
TP5
TP4
Free Run
L106
SW Osc.
L107
C011
C012
LW
Osc.
SW Osc.
L109
AM IF
AM IF
L110
FM IF
DET.
Output
TP3
L111

Figure 4.

TEST EQUIPMENT

1. Signal generator with a frequency range of at least from 140 kHz to 23 MHz AM.
2. Oscilloscope with a side range amplifier of approximately 100 kHz.
3. Test loop – a coil of any size wire, one turn or more. (LW & MW)
4. A 30 ohm dummy antenna. (SW)
5. VTVM

AM ALIGNMENT

1. Turn on the AM signal generator and the VTVM allowing a fifteen-minute warm-up period.
2. Using the test loop across the output of the signal generator, inductively connect the signal generator to the radio.
3. Connect the VTVM across the voice coil or a 3.2 ohm dummy load.
4. Set signal generator frequency as listed in ALIGNMENT CHART and maintain a sufficient output level to provide an indication on VTVM.
5. Set volume control at mid-position.
6. Proceed as outlined in the IF-LW, MW and SW ALIGNMENT CHART.

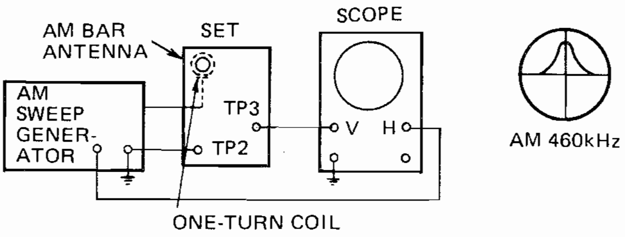

AM BAR
ANTENNA
SET
SCOPE
AM
SWEEP
GENER-
ATOR
TP3
TP2
V
H
AM 460kHz
ONE-TURN COIL

Figure 5.

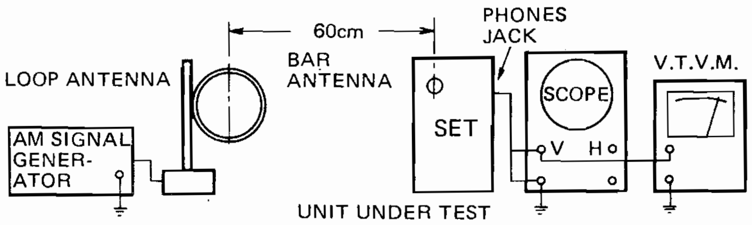

LOOP ANTENNA
60cm
BAR ANTENNA
PHONES JACK
V.T.V.M.
SCOPE
SET
V
H
AM SIGNAL GENERATOR
UNIT UNDER TEST

Figure 6.

MW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
IF	1	460 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	L109 L110	Adjust for maximum indication.
MW	2	510 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L107 (MW)	Adjust for maximum indication.
	3	1650 kHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C007	Adjust for maximum indication.
	4	Repeat steps 2 and 3 as required.			
	5	600 kHz	Tune to Signal.	Ant. Coil L104 (MW)	Adjust for maximum indication.
	6	1400 kHz	Tune to Signal.	Ant. Trim. C005	Adjust for maximum indication.
	7	Repeat steps 5 and 6 as required.			

LW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
LW	1	142 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L108	Adjust for maximum indication.
	2	280 kHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C012	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	160 kHz	Tune to Signal.	Ant. Coil L103	Adjust for maximum indication.
	5	280 kHz	Tune to Signal.	Ant. Trim. C010	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			

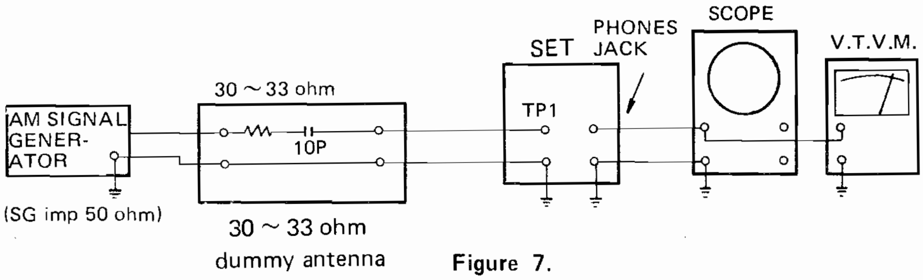

SCOPE
PHONES JACK
SET
V.T.V.M.
30 ~ 33 ohm
AM SIGNAL GENERATOR
TP1
10P
(SG imp 50 ohm)
30 ~ 33 ohm
dummy antenna

Figure 7.

SW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
SW	1	5.75 MHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L106	Adjust for maximum indication.
	2	16 MHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C011	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	6.5 MHz	Tune to Signal.	Ant. Coil L102	Adjust for maximum indication.
	5	14 MHz	No Adjustment	Ant. Trim. C009	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			

FM-IF ALIGNMENT

1. Set the select switch to FM position.
2. Turn on both sweep generator and oscilloscope, and allow a fifteen-minute warm-up period.
3. Connect the RF SWEEP SIGNAL OUTPUT from the signal generator through the loop antenna to the receiver.
4. Connect the oscilloscope vertical input directly to the test point TURN OUT H and connect the shielded lead to the test point E or chassis ground.
5. Connec the SWEEP VOLTAGE OUTPUT of the sweep generator to the oscilloscope.
6. Proceed as outlined in the FM-IF ALIGNMENT CHART.

FM-IF ALIGNMENT CHART

Step	Signal coupling	Equip.	Tuning	Connection	Adjust. point	Pattern
1	Connect sweep generator output to a three-turn loop antenna of 10cm diameter.	Sweep generator of 10.7 MHz center freq. with 10.7 MHz marker.	Tuning Knob fully counter-clockwise (Lowest Frequency.)	Set scope for connecting output signal from TUN OUT to vertical axis of scope "V" and sweep generator output to horizontal axis "H".	L105 L111	Turn the IF Transformer L111 fully counterclockwise to obtain a single peak. Adjust coil L105 in order until the best single peak is obtained. Figure 9. Finally turn the coil L111 to obtain S curve. See Figure 10.

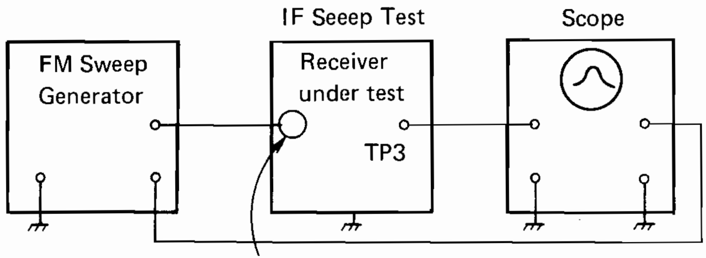


Figure 8. 3-turn Loop Antenna located near the L002.

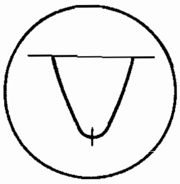


Figure 9.

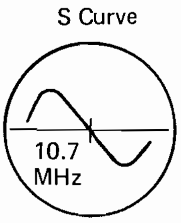


Figure 10.

FM-RF ALIGNMENT

1. Turn on the signal generator and the VTVM, and allow a fifteen-minute warm-up period.
2. Connect the signal generator output through a 75 ohm dummy antenna across FM ANT.
3. Connect the VTVM across the voice coil or a 3.2 ohm dummy load.
4. Set the volume control to mid-position.

5. Adjust the signal generator frequency as indicated in FM-RF ALIGNMENT CHART, and maintain a sufficient signal output level to provide a measurable indication.
6. Proceed as outlined in the FM-RF ALIGNMENT CHART.

FM-RF ALIGNMENT CHART

Step	Signal Generator	Radio Dial Setting	Adjustment	Remarks
1	87.5 MHz	Tuning Knob fully Counterclockwise (Lowest Frequency)	OSC. Coil	Adjust for maximum output indication.
2	108 MHz	Tuning Knob fully Clockwise (Highest Frequency)	OSC. Trim. C003	Adjust for maximum output indication.
3	Repeat steps 1 and 2 as required.			
4	90 MHz	Tune to signal	Ant. Coil L001	Adjust for maximum output indication.
5	106 MHz		Ant. Trim. C001	
6	Repeat steps 4 and 5 as required.			

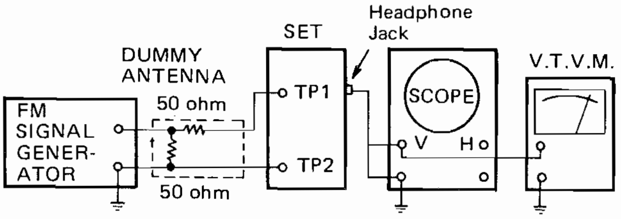

Headphone Jack
SET
DUMMY ANTENNA
50 ohm
50 ohm
FM SIGNAL GENERATOR
TP1
TP2
SCOPE
V
H
V.T.V.M.

Figure 11.

FREE RUN FREQUENCY ALIGNMENT

Adjust R203 under no signal condition so as to obtain 38 kHz ± 75 Hz.

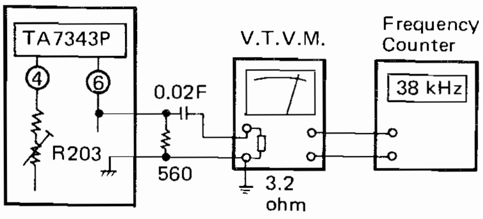

TA7343P
④
⑥
R203
0.02F
560
V.T.V.M.
3.2 ohm
Frequency Counter
38 kHz

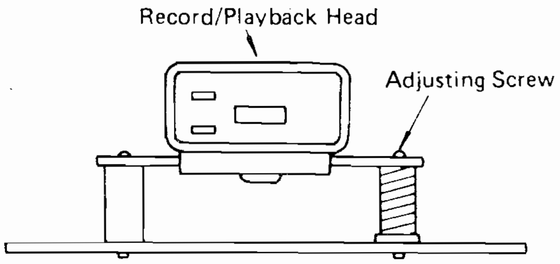
Figure 12.

CAUTION:

When realigning the FM Receiving Frequency, the highest end of the frequency range should not be more than 108 MHz and the lowest end of the frequency range should not be less than 87.5 MHz, in order to comply with FTZ regulations in West Germany.

RECORD/PLAYBACK HEAD ADJUSTMENT

A 6.3 kHz test tape must be used for this adjustment. Connect a VTVM or an oscilloscope to the headphones jack or speaker terminal and adjust the azimuth by using a phillips screwdriver to maintain the maximum output voltage.


Record/Playback Head
Adjusting Screw

Record/Playback Head Adjustment

Figure 13.

TAKE-UP/SUPPLY REEL TENSION

1. Insert cassette torque meter (HARTAK X-87 Torquette).
2. Press PLAY button and read torque meter. Torque should be 35 to 65 gcm.
3. Release PLAY button and press REWIND button. Torque should be 60 to 160 gcm. If necessary, clean take-up reel or drive belt with alcohol, or replace belt.

4. DIAL CORD RESTRINGING

DIAL CORD STRINGING

1. Turn the shaft of poli-variable capacitor fully clockwise.
2. Wind the dial cord in numerical order after passing through the hole of drum.
3. Hook the spring to the drum after completing winding.
4. Turn the tuning shaft fully counterclockwise.
5. Set the pointer to the cord.

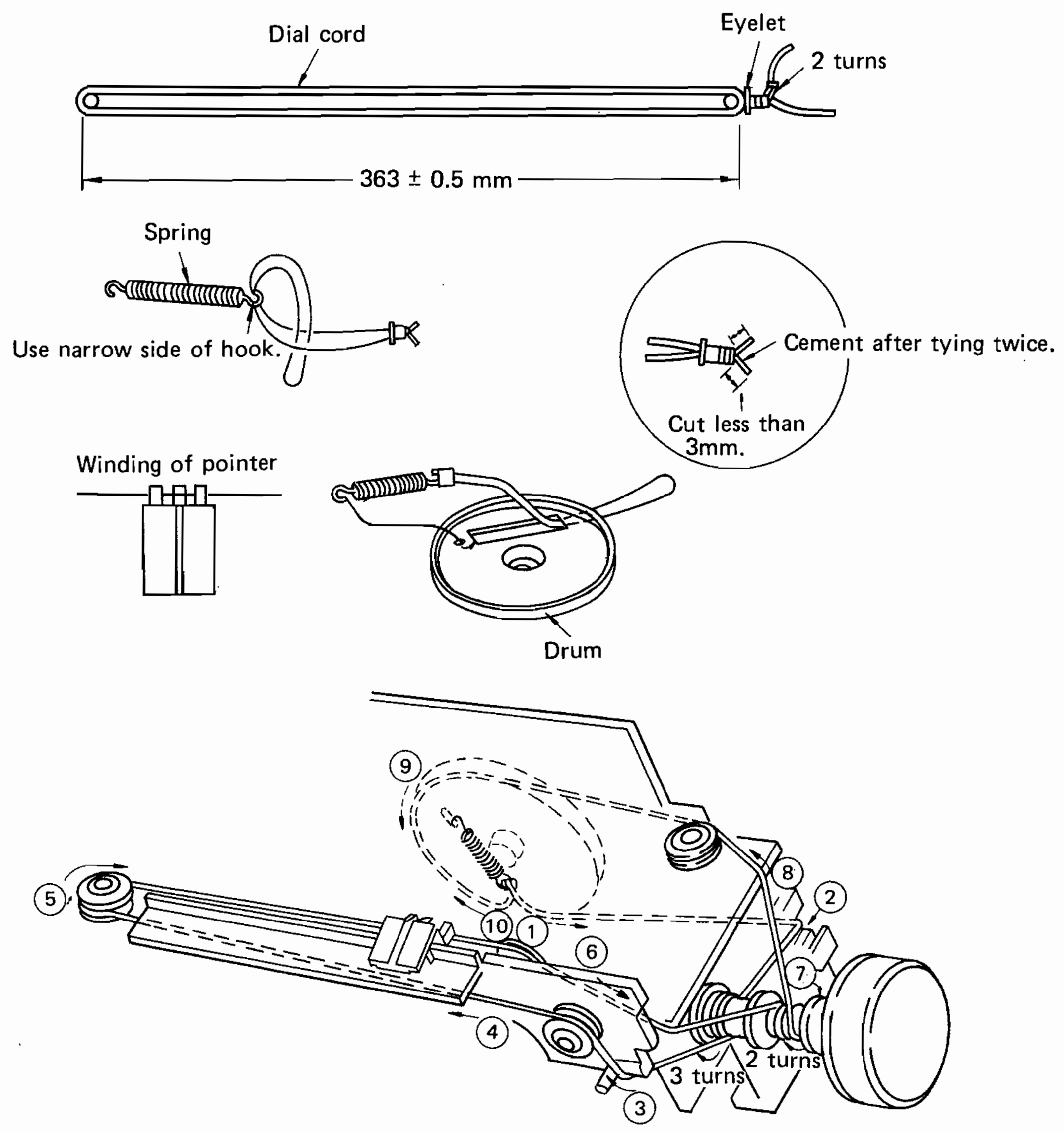

Dial cord
Eyelet
2 turns
363 ± 0.5 mm
Spring
Use narrow side of hook.
Cement after tying twice.
Cut less than 3mm.
Winding of pointer
Drum
⑨
⑤
⑩
①
⑥
⑧
②
⑦
④
③
2 turns
3 turns

Figure 14.

5. BLOCK DIAGRAM

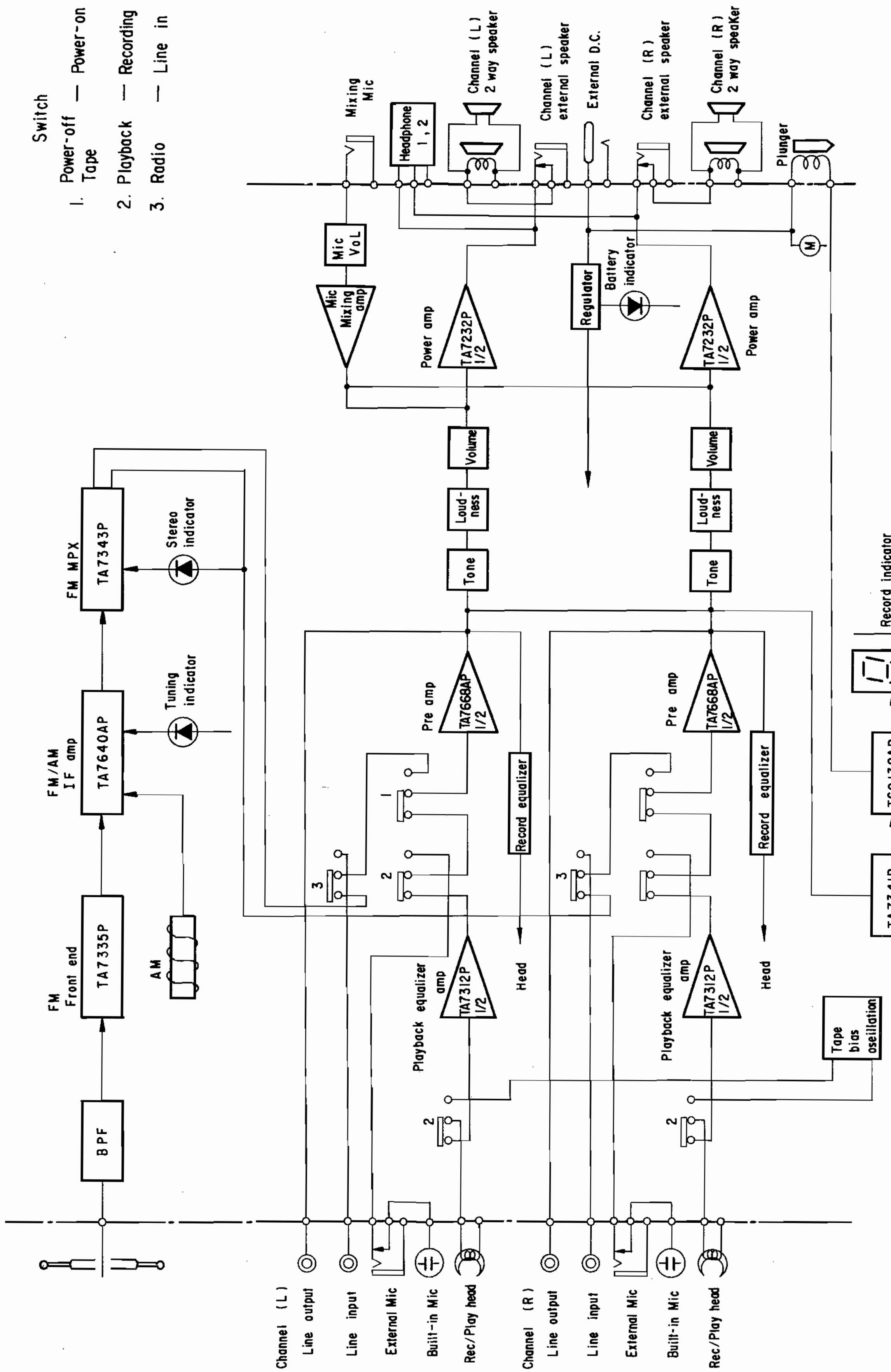

Switch
1. Power-off — Power-on
Tape
2. Playback — Recording
3. Radio — Line in
Mixing Mic
Headphone 1, 2
Channel (L) 2 way speaker
Channel (L) external speaker
External D.C.
Channel (R) external speaker
Channel (R) 2 way speaker
Plunger
M
Mic VoL
Mic Mixing amp
Power amp
TA7232P 1/2
Regulator
Battery indicator
TA7232P 1/2
Power amp
Volume
Loud-ness
Tone
Volume
Loud-ness
Tone
FM MPX
TA7343P
Stereo indicator
FM/AM IF amp
TA7640AP
Tuning indicator
FM Front end
TA7335P
AM
BPF
Pre amp
TA7668AP 1/2
Record equalizer
Pre amp
TA7668AP 1/2
Record equalizer
Record indicator
Program display
TC9138AP
Control
TA7341P
Detection
3
2
1
Playback equalizer amp
TA7312P 1/2
Head
Playback equalizer amp
TA7312P 1/2
Head
Tape bias oseillation
2
Channel (L)
Line output
Line input
External Mic
Built-in Mic
Rec/Play head
Channel (R)
Line output
Line input
External Mic
Built-in Mic
Rec/Play head

Figure 15.

6. ELECTRICAL PARTS LOCATIONS

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Q702	PB	0V	0.1V	0V	2.2V	4.4V	0V	4.5V	0V	*	*	*	*	*	*	*	4.5V
	SET RESET					RESET 0V	SET Approx4.5V			RESET 0.2V		↳ * ...... Hi 3.8V Lo 0V					
D701	PB	※	※	※	0V	0V	※	※	※	※	0V	※ ......ON 1.8 OFF 0					
	REC	0V	0V	0V	1.9V	0V	0V	0V	0V	0V	0V	—	—	—	—	—	—

		E	C	B
Q703	PB	0	4.2	0
	PB	0	0	0.7

	1	2	3	4	5	6	7	8	9	10	11	12
Q301	8.8V	4.5V	0V	0.5V	0V	5.1V	0V	0V	0.5V	8.8V	4.5V	9V

	E	C	B
Q302	0V	2.3V	0.7V

Q701	1	2	3	4	5	6	7	8	9
MQJS	5.9V	0.8V	0.7V	0	0	5.8V	0.7V	0.1V	6.3V

	1	2	3	4	5	6	7	8	9
Q401	3.4V	2.8V	3V	3.9V	0V	5.9V	3V	2.8V	3.4V

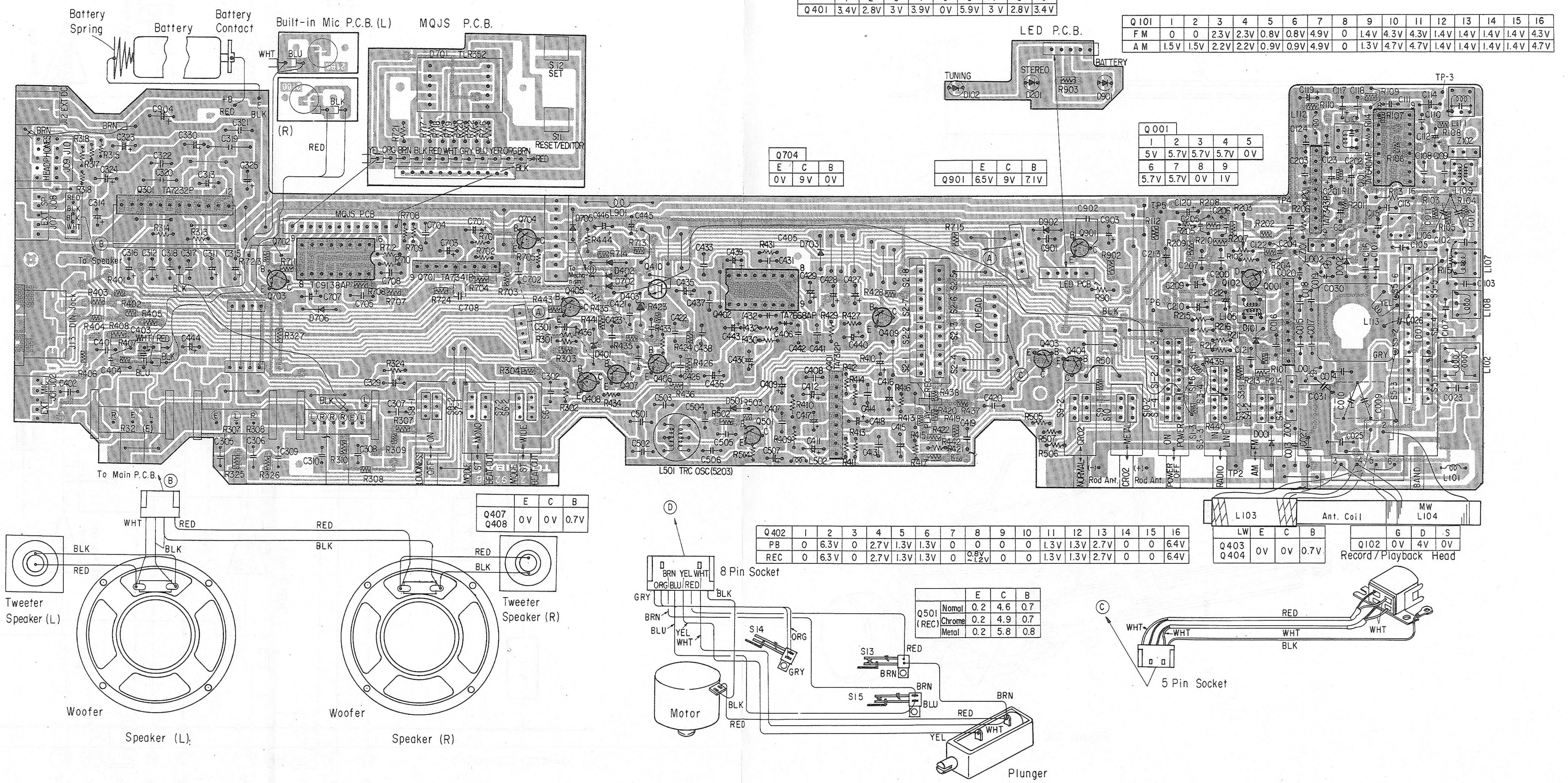
Q201	1	2	3	4	5	6	7	8	9
FM	2.7V	3.4V	4.8V	4V	0	4.9V	4.1V	2.5V	2.5V
AM	2.8V	3.6V	5V	3.2V	0	4.9V	5.1V	2.7V	2.7V

Q101	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FM	0	0	2.3V	2.3V	0.8V	0.8V	4.9V	0	1.4V	4.3V	4.3V	1.4V	1.4V	1.4V	1.4V	4.3V
AM	1.5V	1.5V	2.2V	2.2V	0.9V	0.9V	4.9V	0	1.3V	4.7V	4.7V	1.4V	1.4V	1.4V	1.4V	4.7V

Q704		
E	C	B
0V	9V	0V

	E	C	B
Q901	6.5V	9V	7.1V

Q001				
1	2	3	4	5
5V	5.7V	5.7V	5.7V	0V
6	7	8	9	
5.7V	5.7V	0V	1V	


Battery Spring
Battery
Battery Contact
Built-in Mic P.C.B. (L)
(R)
MQJS P.C.B.
D701 TLR352
S12 SET
S11 RESET/EDITOR
LED P.C.B.
TUNING
STEREO
BATTERY
D102
D201
R903
D901
TP-3
HEADPHONES
Q301 TA7232P
To Speaker
MQJS PCB
Q702 TC9138AP
Q701 TA7341P
Q402 TA7668AP
TA7343P
LED PCB
TO HEAD
L501 TRC OSC(5203)
NORMAL
CR02
Rod Ant.
POWER OFF
RADIO
TP2
AM
BAND
L101
L103
Ant. Coil
MW L104
MODE
ST
MONO
BEAT CUT
WIDE
LOUDNESS
To Main P.C.B.
WHT
RED
BLK
Tweeter Speaker (L)
Tweeter Speaker (R)
Woofer
Speaker (L)
Speaker (R)
8 Pin Socket
BRN YEL WHT
ORG BLU RED
GRY
S13
S14
S15
ORG
BRN
BLU
YEL
Motor
Plunger
5 Pin Socket
Record/Playback Head

	E	C	B
Q407 Q408	0V	0V	0.7V

Q402	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PB	0	6.3V	0	2.7V	1.3V	1.3V	0	0	0	0	1.3V	1.3V	2.7V	0	0	6.4V
REC	0	6.3V	0	2.7V	1.3V	1.3V	0	0.8V ~1.2V	0	0	1.3V	1.3V	2.7V	0	0	6.4V

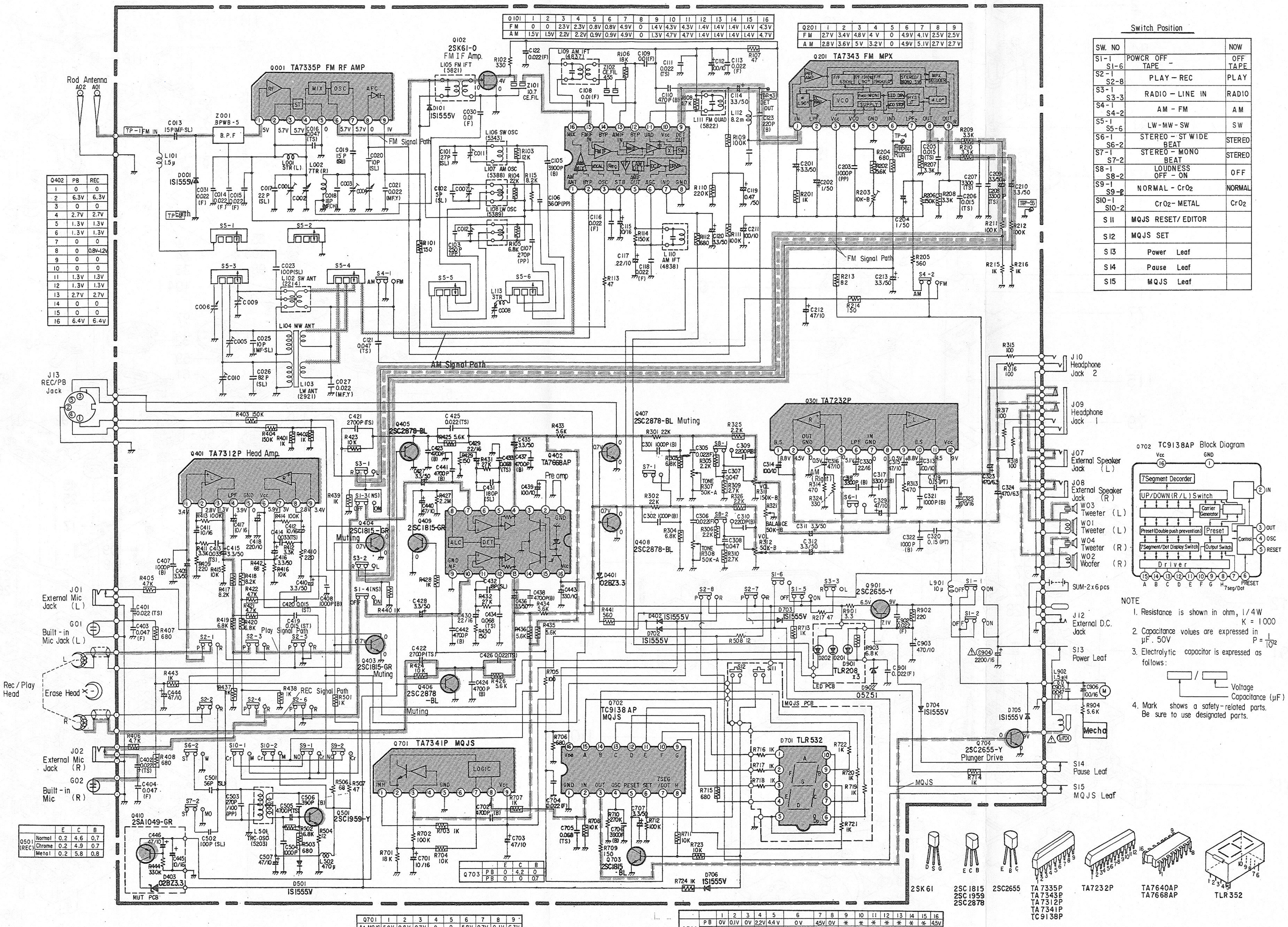
LW	E	C	B
Q403 Q404	0V	0V	0.7V

	G	D	S
Q102	0V	4V	0V

		E	C	B
Q501 (REC)	Nomal	0.2	4.6	0.7
	Chrome	0.2	4.9	0.7
	Metal	0.2	5.8	0.8

Figure 16.

7. SCHEMATIC DIAGRAM


Rod Antenna
A02 A01
Q101 TA7335P FM RF AMP
Q102 2SK61-O FM IF Amp.
Q103 TA7640AP
Q201 TA7343 FM MPX
Q301 TA7232P
Q401 TA7312P Head Amp
Q402 TA7668AP Pre amp
Q405 2SC2878-BL
Q407 2SC2878-BL Muting
Q408 2SC2878-BL
Q404 2SC1815-GR Muting
Q409 2SC1815-GR
Q403 2SC1815-GR Muting
Q406 2SC2878-BL
Q410 2SA1049-GR
Q501 2SC1959-Y
Q701 TA7341P MQJS
Q702 TC9138AP MQJS
Q703 2SC1815-BL
Q704 2SC2655-Y Plunger Drive
Q901 2SC2655-Y
D701 TLR532
D901 TLR208 x3
FM Signal Path
AM Signal Path
Play Signal Path
REC Signal Path
J13 REC/PB Jack
J10 Headphone Jack 2
J09 Headphone Jack 1
J07 External Speaker Jack (L)
J08 External Speaker Jack (R)
W03 Tweeter (L)
W01 Tweeter (L)
W04 Tweeter (R)
W02 Woofer (R)
SUM-2x6pcs
J12 External D.C. Jack
S13 Power Leaf
S14 Pause Leaf
S15 MQJS Leaf
Mecha
J01 External Mic Jack (L)
G01 Built-in Mic Jack (L)
Rec / Play Head
Erase Head
J02 External Mic Jack (R)
G02 Built-in Mic (R)
LED PCB
MQJS PCB
MUT PCB
Q702 TC9138AP Block Diagram
7Segment Decorder
UP/DOWN(R/L) Switch
Carrier Generator
Preset(Double push prevention)
Preset
Control
7Segment/Dot Display Switch
Output Switch
Driver
OSC
RESET
PRESET
7seg/Dot
2SK61
2SC1815
2SC1959
2SC2878
2SC2655
TA7335P
TA7343P
TA7312P
TA7341P
TC9138P
TA7232P
TA7640AP
TA7668AP
TLR352

Q101	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FM	0	0	2.3V	2.3V	0.8V	0.8V	4.9V	0	1.4V	4.3V	4.3V	1.4V	1.4V	1.4V	1.4V	4.3V
AM	1.5V	1.5V	2.2V	2.2V	0.9V	0.9V	4.9V	0	1.3V	4.7V	4.7V	1.4V	1.4V	1.4V	1.4V	4.7V

Q201	1	2	3	4	5	6	7	8	9
FM	2.7V	3.4V	4.8V	4 V	0	4.9V	4.1V	2.5V	2.5V
AM	2.8V	3.6V	5V	3.2V	0	4.9V	5.1V	2.7V	2.7V

Switch Position

SW. NO		NOW
S1-1 S1-6	POWCR OFF TAPE -	OFF TAPE
S2-1 S2-8	PLAY - REC	PLAY
S3-1 S3-3	RADIO - LINE IN	RADIO
S4-1 S4-2	AM - FM	AM
S5-1 S5-6	LW-MW-SW	SW
S6-1 S6-2	STEREO - ST WIDE BEAT	STEREO
S7-1 S7-2	STEREO - MONO BEAT	STEREO
S8-1 S8-2	LOUDNESS OFF - ON	OFF
S9-1 S9-2	NORMAL - CrO2	NORMAL
S10-1 S10-2	CrO2 - METAL	CrO2
S 11	MQJS RESET/ EDITOR	
S 12	MQJS SET	
S 13	Power Leaf	
S 14	Pause Leaf	
S 15	MQJS Leaf	

Q402	PB	REC
1	0	0
2	6.3V	6.3V
3	0	0
4	2.7V	2.7V
5	1.3V	1.3V
6	1.3V	1.3V
7	0	0
8	0	0.8V~1.2V
9	0	0
10	0	0
11	1.3V	1.3V
12	1.3V	1.3V
13	2.7V	2.7V
14	0	0
15	0	0
16	6.4V	6.4V

		E	C	B
Q501 (REC)	Normal	0.2	4.6	0.7
	Chrome	0.2	4.9	0.7
	Metal	0.2	5.8	0.8

		E	C	B
Q703	PB	0	4.2	0
	PB	0	0	0.7

Q701	1	2	3	4	5	6	7	8	9
At MQJS	5.9V	0.8V	0.7V	0	0	5.8V	0.7V	0.1V	6.3V

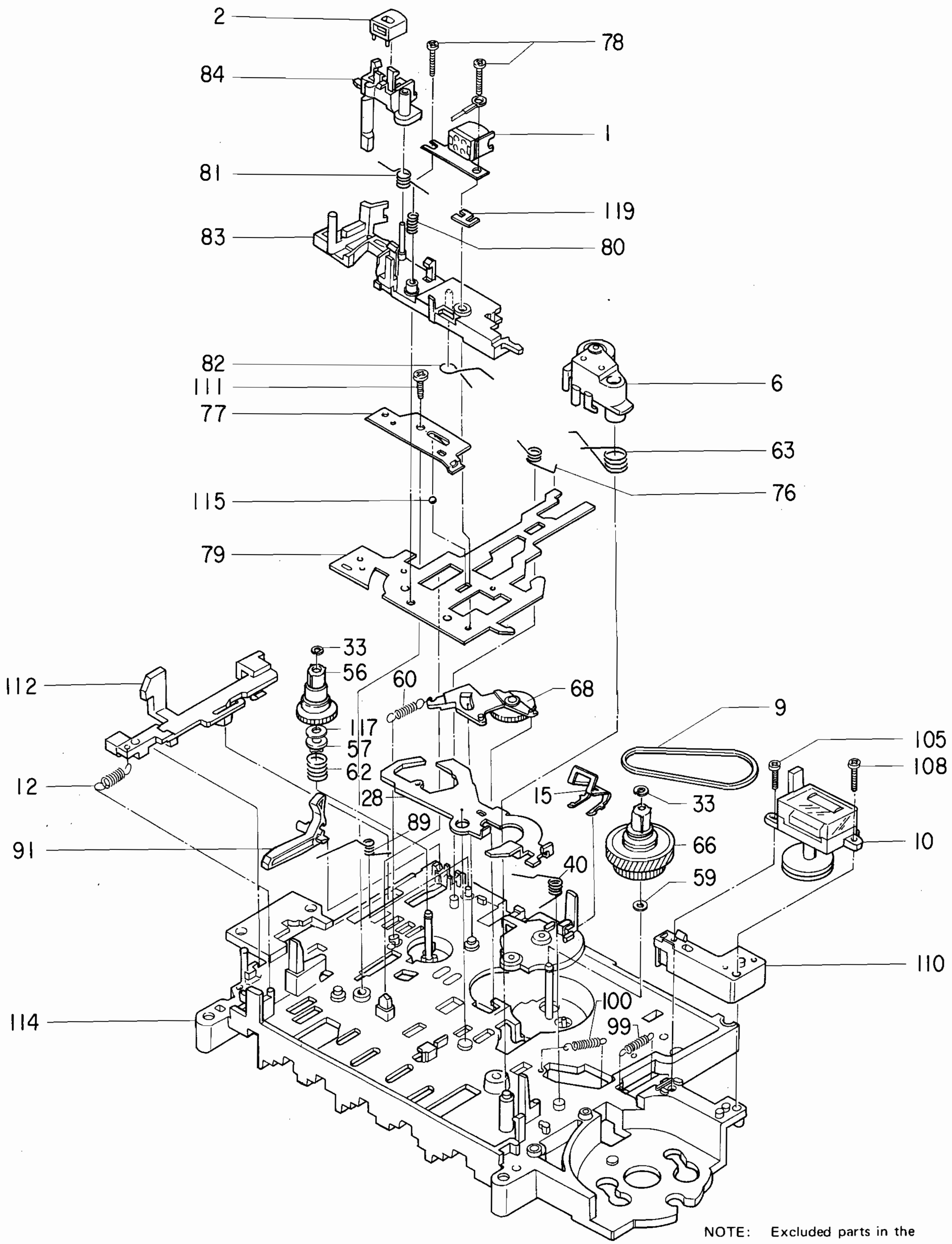
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Q702	PB	0V	0.1V	0V	2.2V	4.4V	0V	4.5V	0V	*	*	*	*	*	*	*	4.5V
	SET RESET					RESET 0V	SET Approx4.5V			RESET 0.2V		*------ Hi 3.8V Lo 0V					
D701		※	※	※	0V	0V	※	※	※	※	0V	※------ON 1.8 OFF 0					
	REC	0V	0V	0V	1.9V	0V	0V	0V	0V	0V	0V	—	—	—	—	—	—

NOTE

1. Resistance is shown in ohm, 1/4W
K = 1000
2. Capacitance values are expressed in µF. 50V
$P = \frac{1}{10^{12}}$
3. Electrolytic capacitor is expressed as follows:
☐ / ☐
Voltage
Capacitance (µF)
4. Mark shows a safety-related parts. Be sure to use designated parts.

Figure 17.

8-1. MECHANISM EXPLODED VIEW (UPPER)


2
78
84
1
81
119
83
80
82
111
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115
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33
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60
68
112
9
117
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105
108
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66
91
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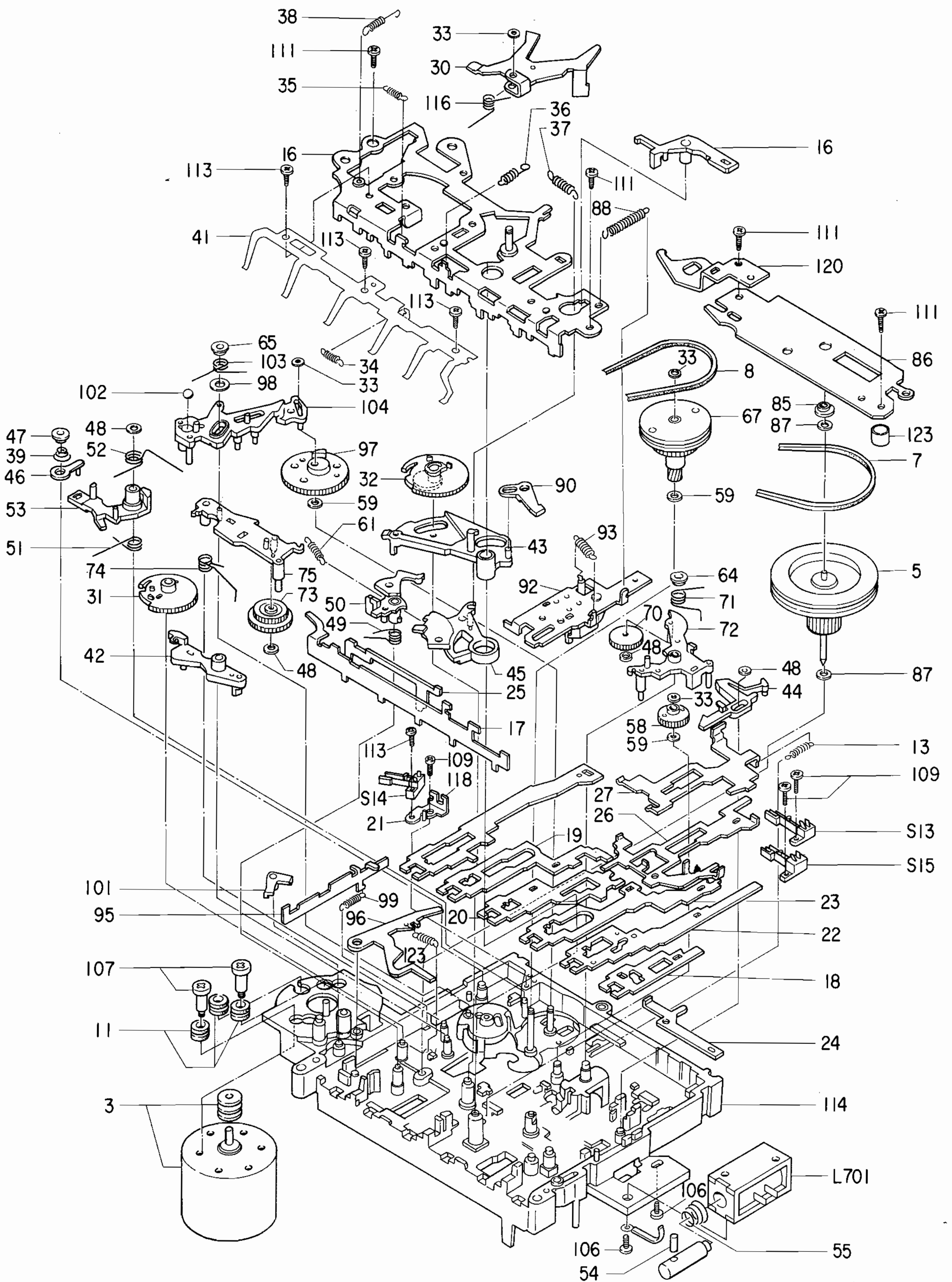
110
100
99
114

NOTE: Excluded parts in the Parts List are not available as replacement parts.

Figure 18.

8-2. MECHANISM EXPLODED VIEW (LOWER)


38
33
111
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116
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113
111
120
113
111
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103
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123
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72
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48
87
45
48
44
25
33
17
58
59
113
109
13
118
109
S14
27
21
26
19
S13
S15
101
99
23
95
96
20
22
123
107
18
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24
3
114
L701
106
106
55
54

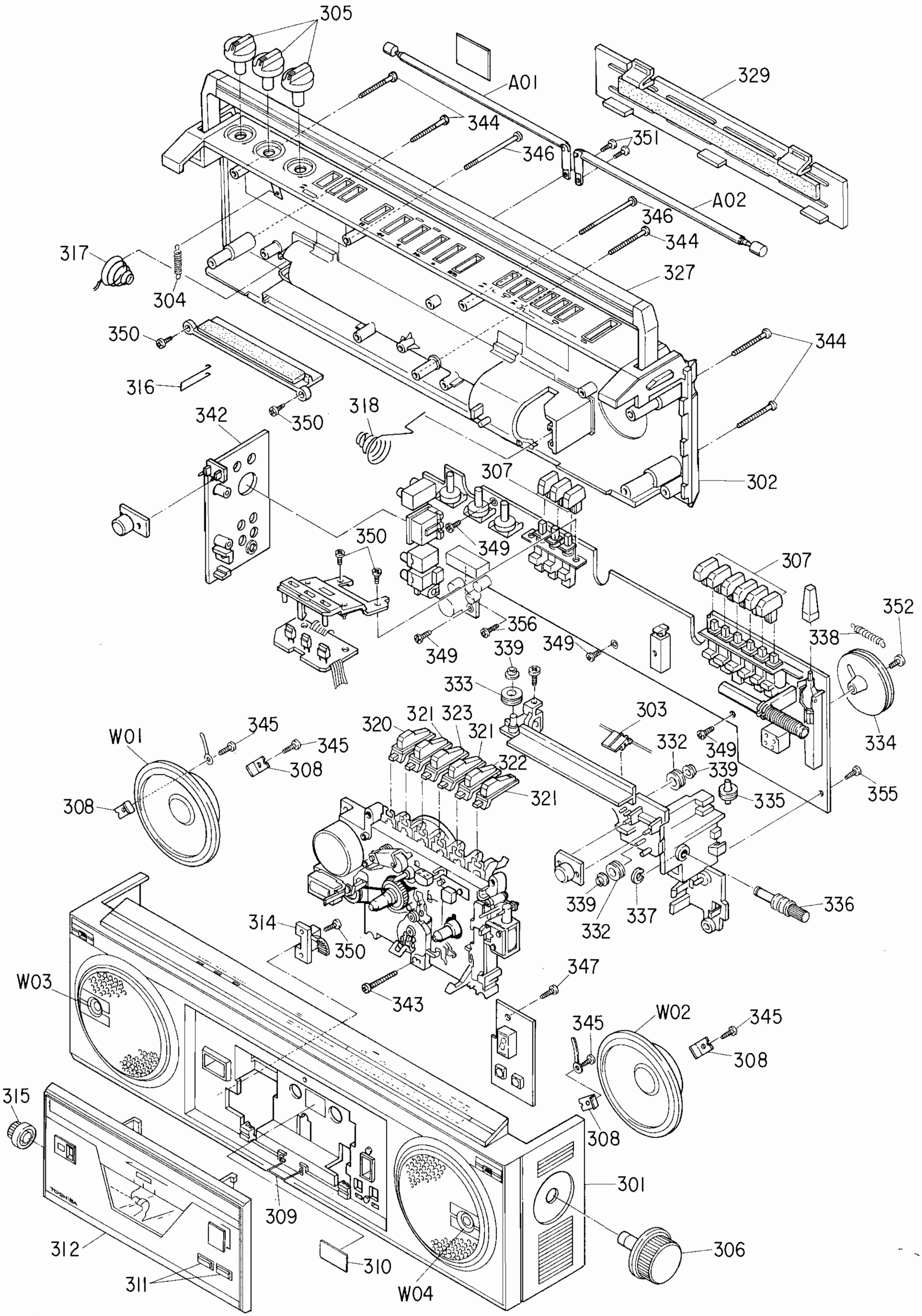
NOTE: Excluded parts in the Parts List are not available as replacement parts.

Figure 19.

9. MECHANISM PARTS LIST

Symbol No.	Part No.	Description
		CASSETTE MECHANISM PARTS
1	22217406	Head, Record/Playback, HRPT406
2	22218245	Head, Erase, HET62
3	25791538	Motor Ass'y
5	25717532	Flywheel Ass'y
6	25717533	Pressure Roller
7	25755548	Belt, Drive
8	25755549	Belt, Center
9	25755562	Belt, Counter
10	25873263	Counter
11	25761327	Cushion, Motor
12	25776484	Spring
13	25776487	Spring
14	25779276	Spring, REC
15	25779282	Spring, Holder Type
17	25741942	Operation Plate, Lock
18	25741943	Operation Plate, Stop
19	25741944	Operation Plate, Fast Forward
20	25741945	Operation Plate, Play
21	25741946	Operation Plate, Pause
22	25741947	Operation Plate, Record
23	25741948	Operation Plate, Rewind
28	25748919	Lever, Cue
30	25748927	Lever, Release
31	25756307	Cam Gear, Pause
32	25756308	Cam Gear, Play
33	25766050	Washer
34	25776488	Spring
35	25776489	Spring
36	25776493	Spring
37	25776494	Spring
38	25776521	Spring
39	25777182	Spring, Pause Lock Lever
40	25778040	Spring, Cue Lever
41	25779278	Spring, Operation Plate
42	25782546	Lever, Pause Lock
43	25782549	Lever, Play Drive
44	25782552	Lever, Select
45	25782555	Lever, Play Gear Lock
46	25782560	Pause Lock
47	25783211	Bushing
48	25783239	Bushing
49	25778048	Spring, Pause Gear Lock Lever
50	25782554	Lever, Pause Gear Lock
51	25778047	Spring, ASO Pause Lever
52	25778049	Spring, Cue Support
53	25782543	Lever, ASO Pause
54	25727270	Spring Pin, Plunger
56	25754425	Reel Plate, Supply
57	25754439	Spacer
58	25756305	Gear, Rewind
59	25766050	Washer
60	25776482	Spring
61	25776492	Spring
62	25777144	Spring
63	25778042	Spring, Pressure Roller
64	25783260	Bushing, BLK
65	25783226	Bushing
66	25712423	Reel Plate, Take-up
67	25713561	Center Clutch Ass'y
68	25712412	Gear Ass'y, Take-up
69	25782551	Lever, Take-up
70	25756304	Gear, Rewind
71	25778045	Spring, Rewind Lever
72	25782547	Lever, Rewind
73	25756306	Gear, Fast Forward
74	25778044	Spring, FF Lever
75	25782548	Lever, Fast Forward
76	25778041	Spring, Head Slider
78	22707833	Screw, Special, 2d x 9mmℓ
80	25777137	Spring, Azimuth
81	25778038	Spring, Erase Head Lever
82	25778043	Spring, Head Mtg. Plate
83	25781250	Head Mtg. Plate
84	25782558	Lever, Erase Head
85	25725340	Holder, Flywheel
87	25766043	Washer
88	25776483	Spring
89	25778039	Spring, REC Lock Lever
90	25782545	Lever, Record
91	25782557	Lever, Record Lock
92	25791529	Slider Ass'y, Record
93	25776481	Spring
97	25756310	Gear, ASO
98	25766073	Washer
99	25776490	Spring
100	25776491	Spring
101	25782561	Interlocking Lever, ASO
102	25757130	Steel Ball, 5mmd
103	25778046	Spring, ASO Detect Lever
104	25782550	Lever, ASO Detect
105	22707299	Screw, BID Hd., Tapping, 2d x 8mmℓ
106	22707350	Screw, DTBID H., 2.6d x 5mmℓ
107	22707747	Screw, Special, Motor
108	22707869	Screw, BID Hd., Tapping, 2d x 18mmℓ
109	22707870	Screw, PAN Hd., Tapping, 2d x 8mmℓ
110	25783294	Mtg. Bracket, Counter
111	22707301	Screw, BID Hd., Tapping, 2.6d x 8mmℓ
112	25782556	Slider, Eject
113	22707426	Screw, DTBID Hd., 2d x 5mmℓ
114	25791539	Chassis Ass'y, Main
119	25735266	Spacer, Rec. Head
122	25782553	Lever, Search

10. CABINET EXPLODED VIEW


305
A01
329
344
351
346
A02
346
344
327
317
304
350
344
316
342
350
318
307
302
350
349
307
352
356
338
339
349
349
333
303
345
W01
320
321
323
321
345
332
349
334
308
322
339
308
321
335
355
339
336
337
332
314
350
347
W03
343
345
W02
345
308
315
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301
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306
312
310
311
W04

Figure 20.

NOTE: Excluded parts in the Parts List are not available as replacement parts.

11. CABINET PARTS LIST

Symbol No.	Part No.	Description
CABINET PARTS		
301	25881478	Cabinet Front Ass'y
302	25881479	Cabinet Back Ass'y
303	22741387	Pointer
304	25776523	Sping, Cabinet
305	25837799	Knob, Balance
306	25837800	Knob, Tuning
307	25837941	Knob, Push
308	25846572	Mtg. Piece
309	25779253	Spring, Cassette Cover
310	25824436	Reflector, Cassette
311	25837802	Button, MQJS
312	25881605	Cassette Cover Ass'y
313	25837860	Knob, Band Select
314	25844202	Damper, Base
315	25857072	Damper, Gear
316	22764018	Battery Spring
317	25776332	Battery Spring
318	25777026	Battery Spring
319	25837829	Knob, Fine Tuning
320	25837803	Button, Pause, Mechanism
321	25837804	Button, Stop/Eject, Review/REW, FF/Cue
322	25837805	Button, Record, Mechanism
323	25837806	Button, Play, Mechanism
327	25825262	Handle, Main
329	25881375	Battery Cover Ass'y
330	22705026	Plastic Rivet, 3d x 6.5mmℓ
332	22742016	Pulley
333	22742162	Pulley
334	22742279	Dial Drum
335	22742287	Pulley with Shaft
336	22743306	Tuning Shaft
337	22743307	Retainer, Tuning Shaft
338	25771548	Spring
339	25783226	Bushing
342	25864167	Jack Plate
343	22707805	Screw, BID Hd., Tapping 3d x 20mmℓ
344	22707810	Screw, BID Hd., Tapping 3d x 35mmℓ
345	22707826	Screw, BID Hd., Tapping 3d x 10mmℓ
346	22707841	Screw, BID Hd., Tapping 3d x 52mmℓ
347	22707842	Screw, BID Hd., Tapping 3d x 8mmℓ
348	22707843	Screw, BID Hd., Tapping 3d x 16mmℓ, RED
349	22707844	Screw, BID Hd., Tapping 3d x 10mmℓ, RED

Symbol No.	Part No.	Description
350	22707802	Screw, BID Hd., Tapping 3d x 12mmℓ
351	22701457	Screw, BID Hd., 3d x 6mmℓ, Chrome Plated
352	22707845	Screw, BID Hd., 2.6d x 8mmℓ, Chrome Plated
354	22707801	Screw, BID Hd., Tapping 3d x 12mmℓ, Chrome Plated
356	22707452	Screw, BID Hd., 3d x 5mmℓ
357	25808281	Nameplate, Main, TE, TU
357	25808369	Nameplate, Main, IT

12. PARTS LIST

CAUTION: The ⚠ mark, the symbol No. circled with rectangle in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

Symbol No.	Part No.	Description
TRANSISTORS, ICS & DIODES		
Q001	B0325270	IC, TA7335P
Q101	B0356385	IC, TA7640AP
Q102	A6041020	Transistor, 2SK61-O
Q201	B0325350	IC, TA7343P
Q301	B0319960	IC, TA7232P
Q401	B0324550	IC, TA7312P
Q402	B0356690	IC, TA7668AP
Q403, 404, 409	A6317460	Transistor, 2SC1815NEW-GR
Q405, 406, 407, 408	A6342210	Transistor, 2SC2878-BL
Q410	A6534740	Transistor, 2SA1049-GR
Q501	A6319300	Transistor, 2SC1959NEW-Y
Q701	B0325320	IC, TA7341P
Q702	B0411385	IC, TC9138AP
Q703	A6317480	Transistor, 2SC1815NEW-BL
Q704, 901	A6333320	Transistor, 2SC2655-Y
D001, 101 402, 501, 702, 703, 704, 705, 706	A7246703	Diode, 1S1555V
D102, 201, 901	A8603140	Diode, LED, TLR208
D401, 403	A7236900	Diode, Zener, 02BZ3.3
D701	A8621520	Diode, LED, TLR352
D902	A7110023	Diode, Zener, 05Z5.1
COILS & TRANSFORMERS		
L001	22294004	Coil, FM
L002	22294457	Coil, FM
L101	22291103	Coil, Choke, 1.5uH
L102	22282214	Coil, Antenna, SW
L103/104	22242921	Coil, Antenna, LW/MW
L105	22265821	IF Transformer, FM
L106	22285343	Coil, Oscillator, SW
L107	22245385	Coil, Oscillator, MW
L108	22245389	Coil, Oscillator, LW
L109	22264837	IF Transformer, AM
L110	22264838	IF Transformer, AM
L111	22265822	IF Transformer, FM
L112	22291140	Coil, Choke
L501	22235203	Coil, Oscillator, Tape Bias
L502	22230106	Coil, Choke, 471F
⚠ L701	22147243	Plunger
L901	22210172	Coil, Choke
L902	22291103	Coil, Choke, 1.5μH
ELECTRICAL PARTS		
S1	22196145	Switch, Slide, Within S3, S4, S9 and S10 S1: POWER OFF TAPE -POWER ON S3: RADIO-LINE IN S4: AM-FM S9: NORMAL-CrO2 S10: CrO2-METAL
S2	22196071	Switch, Slide, Record/ Playback
S5	22195955	Switch, Lever, LW-MW-SW
S6	22196073	Switch, Push, STEREO-SPACE WIDE Within S7 and S8 S7: STEREO-MONO (BEAT) S8: LOUDNESS OFF-ON
S11	22196069	Switch, Key, RESET/ EDITOR Within S12 S12: MQJS SET
S13	22196064	Switch, Leaf, Power ON-OFF
S14	22196063	Switch, Leaf, Pause
S15	22196063	Switch, Leaf, MQJS
J1/J2	22163950	Jack, Ext. Mic., R/L, 3.5mmd
J3 to J6	22163887	Jack, US-4P, RADIO-LINE
J7/J8	22163950	Jack, Ext. Speaker, 3.5mmd
J9/J10	22163951	Jack, Headphone, 3.5mmd
J12	22163721	Jack, DC Power
J13	22167975	Jack, DIN-5P
G01, 02	22154233	Built-in Microphone
A01, 02	22124485	Rod Antenna
W01, 02	22152413	Speaker, Woofer, 100mm
W03, 04	22152425	Speaker, Tweeter, 20mm
Z001	22153121	Filter, FM Bypass
Z101	22153058	Filter, Ceramic, FM
Z102	22153083	Filter, Ceramic, 460B, AM

CAPACITORS

Voltage Ratings of Ceramic and Plastic Film Capacitor are 50V DC unless otherwise noted.

D = ±0.5pF, J = ±5%, K = ±10%, M = ±20%, Z = -20+80%
N = ±30%

Abbreviations: CD = Ceramic Disk, PF = Plastic Film,
EL = Electrolytic

Symbol No.	Part No.	Description
C001, 002, 003, 004, 005, 006, 008	22308219	Tuning Capacitor with Trimmer
C009 , 010	22309184	Trimmer, LW, SW, Ant.
C011 ~ 012	22309184	Trimmer, LW, SW, Osc.
C013, 014	22342223	CD, 0.022mfd, Z
C015	22342223	CD, 0.022mfd, Z
C016	22360331	PF, 0.047mfd, M, 25V
C017	22362220	CD, 22pF, K
C018	22360696	CD, 22pF, J (CH)
C019	22360694	CD, 15pF, J (CH)
C020	22361100	CD, 10pF, D
C021	22340183	CD, 0.022mfd, N
C023	22362101	CD, 100pF, K
C025	22360679	CD, 10pF, J
C026	22362820	CD, 82pF, K
C027	22340183	CD, 0.022mfd, N
C030	22342103	CD, 0.01mfd, Z
C031	22342223	CD, 0.022mfd, Z
C101	22362270	CD, 27pF, K
C102	22362220	CD, 22pF, K
C103	22321222	CD, 250pF, J
C105	22349392	CD, 3900pF, K
C106	22321016	PF, 360pF, J
C107	22321048	PF, 270pF, J
C108	22342103	CD, 0.01mfd, Z
C109	22342103	CD, 0.01mfd, Z
C110	22349471	CD, 470pF, K
C111	22360329	PF, 0.022mfd, M
C112	22483101	EL, 100mfd, 10V
C113	22342223	CD, 0.022mfd, Z
C114	22488339	EL, 3.3mfd, 50V
C115	22485100	EL, 10mfd, 16V
C116	22342223	CD, 0.022mfd, Z
C117	22485220	EL, 22mfd, 16V
C118	22342223	CD, 0.022mfd, Z
C119	22488478	EL, 0.47mfd, 50V
C120	22488339	EL, 3.3mfd, 50V
C121	22360331	PF, 0.047mfd, M
C122	22342223	CD, 0.022mfd, Z
C123	22349221	CD, 220pF, K
C124	22349331	CD, 330pF, K
C201	22488339	EL, 3.3mfd, 50V
C202	22488109	EL, 1mfd, 50V
C203	22321032	PF, 1000pF, K
C204	22488109	EL, 1mfd, 50V
C205, 206	22360328	PF, 0.015mfd, M, 25V
C207, 208	22360324	PF, 3300pF, M, 25V
C209, 210	22488339	EL, 3.3mfd, 50V
C211	22483101	EL, 100mfd, 10V
C212	22483470	EL, 47mfd, 10V
C213	22488339	EL, 3.3mfd, 50V
C301, 302	22349102	CD, 1000pF, K
C305, 306	22342223	CD, 0.022mfd, Z
C307, 308	22360331	CD, 0.047mfd, M, 25V
C309, 310	22349222	CD, 2200pF, K
C311, 312	22488339	EL, 3.3mfd, 50V
C313, 314	22483101	EL, 100mfd, 10V
C315, 316	22483470	EL, 47mfd, 10V
C317, 318	22349332	CD, 3300pF, K
C319, 320	22372154	PF, 0.15mfd, K
C321, 322	22349102	CD, 1000pF
C323, 324	22482471	EL, 470mfd, 6.3V
C325	22485471	EL, 470mfd, 16V
C329	22483470	EL, 47mfd, 10V
C330	22485220	EL, 22mfd, 16V
C401, 402	22360329	PF, 0.022mfd, M, 25V
C403, 404	22360331	CD, 0.047mfd, M, 25V
C407, 408	22349102	CD, 1000pF, K
C409, 410	22488339	EL, 3.3mfd, 50V
C411	22485100	EL, 10mfd, 16V
C412	22485100	EL, 10mfd, 16V
C413	22360330	PF, 0.033mfd, M, 25V
C414	22360330	PF, 0.033mfd, M, 25V
C415	22488339	EL, 3.3mfd, 50V
C416	22488339	EL, 3.3mfd, 50V
C417	22485100	EL. 10mfd, 16V
C418	22483221	EL, 220mfd, 10V
C419, 420	22360328	PF, 0.015mfd, M, 25V
C421, 422	22360537	PF, 2700pF, K, 25V
C423, 424	22349472	CD, 4700pF, K
C425, 426	22360329	PF, 0.022mfd, M, 25V
C427, 428	22488339	EL, 3.3mfd, 50V
C429, 430	22485220	EL, 22mfd, 16V
C431, 432	22362180	CD, 18pF, K
C433, 434	22360332	PF, 0.068mfd, M, 25V
C435, 436	22488339	EL, 3.3mfd, 50V
C437, 438	22349472	CD, 4700pF, K
C439	22483470	EL, 47mfd, 10V
C440	22483101	EL, 100mfd, 10V
C441, 442	22349472	CD, 4700pF, K
C443	22483331	EL, 330mfd, 10V
C444	22483470	EL.47mfd, 10V
C445	22485100	EL, 10mfd, 16V
C446	22483470	EL 47mfd, 10V
C501	22349271	CD, 270pF, K
C502	22349151	CD, 150pF, K

Symbol No.	Part No.	Description
C503	22321105	PF, 270pF, J, 100V
C504	22360321	PF, 1000pF, M, 25V
C505	22360325	PF, 4700pF, M, 25V
C506	22349391	CD, 390pF, K
C507	22483470	EL, 47mfd, 10V
C701	22485100	EL, 10mfd, 16V
C702	22349472	CD, 4700pF, K
C703	22483470	EL, 47mfd, 10V
C704	22342223	CD, 0.022mfd, Z
C705	22360332	PF, 0.068mfd, M, 25V
C706	22349392	CD, 3900pF, K
C707	22488339	EL, 3.3mfd, 50V
C901, 902	22342223	CD, 0.022mfd, Z
C903	22483471	EL .470mfd, 10V
C904	22485222	EL. 2200mfd, 16V
C905	22342473	CD, 0.047mfd, Z
C906	22485101	EL, 100mfd, 16V

RESISTORS

1. **Resistors are Carbon Film ¼W, ±5% unless otherwise noted.**
2. **PRC is short for the printed resistor circuit. If replacement of the resistor in PRC is required, please use the substitutional fixed carbon film resistor of ¼W, ±5% according to the following list.**
   K = 1000, M = 1000000

Symbol No.	Part No.	Description
R101	22545151	150 ohm (PRC)
R102	22584331	330 ohm
R103	22545123	12K ohm (PRC)
R104	22545223	22K ohm (PRC)
R105	22545682	6.8K ohm (PRC)
R106	22545183	18K ohm (PRC)
R108	22545472	4.7K ohm (PRC)
R109	22545104	100K ohm (PRC)
R110	22545224	220K ohm (PRC)
R111	22545104	100K ohm (PRC)
R112	22545681	680 ohm (PRC)
R113	22584470	47 ohm
R114	22584154	150K ohm
R115	22545822	8.2K ohm
R201	22545102	1K ohm (PRC)
R202	22545562	5.6K ohm (PRC)
R203	22658599	Semi-fixed Variable 10K-B, Free Run
R204	22545681	680 ohm (PRC)
R205	22584561	560 ohm
R206	22584154	150K ohm
R207	22545332	3.3K ohm (PRC)
R208	22545332	3.3K ohm (PRC)
R209	22545332	3.3K ohm (PRC)
R210	22545332	3.3K ohm (PRC)
R211	22584104	100K ohm
R212	22584104	100K ohm
R213	22545820	82 ohm (PRC)
R214	22545151	150 ohm (PRC)
R215	22584102	1K ohm
R216	22584102	1K ohm
R217	22584470	47 ohm
R301	22584223	22K ohm
R302	22584223	22K ohm
R303	22545682	6.8K ohm (PRC)
R304	22545682	6.8K ohm (PRC)
R305	22545222	2.2K ohm (PRC)
R306	22545222	2.2K ohm (PRC)
R307 / R308	22624430	Variable 50K-A, Tone
R309	22545272	2.7K ohm (PRC)
R310	22545272	2.7K ohm (PRC)
R311 / R312	22625019	Variable, 50K-B, Volume
R313	22584471	470 ohm
R314	22584471	470 ohm
R315	22584101	100 ohm
R316	22584101	100 ohm
R317	22584101	100 ohm
R318	22584101	100 ohm
R321	22625018	Variable 50K-B, Balance
R324	22584331	330 ohm
R325	22545222	2.2K ohm (PRC)
R326	22545222	2.2K ohm (PRC)
R401, 402	22545102	1K ohm (PRC)
R403, 404	22545154	150K ohm (PRC)
R405, 406	22545472	4.7K ohm (PRC)
R407	22545681	680 ohm (PRC)
R408	22545681	680 ohm (PRC)
R409	22584221	220 ohm
R410	22584221	220 ohm
R411	22584332	3.3K ohm
R412	22584332	3.3K ohm
R413	22584104	100K ohm
R414	22584104	100K ohm
R415	22584103	10K ohm
R416	22584103	10K ohm
R417	22545822	8.2K ohm (PRC)
R418	22545822	8.2K ohm (PRC)
R419	22545682	6.8K ohm (PRC)
R420	22545682	6.8K ohm (PRC)
R421	22545472	4.7K ohm (PRC)
R422	22545472	4.7K ohm (PRC)
R423	22545103	10K ohm (PRC)
R424	22545103	10K ohm (PRC)
R425	22545562	5.6K ohm (PRC)
R426	22545562	5.6K ohm (PRC)
R427	22584225	2.2M ohm
R428	22545102	1K ohm (PRC)

Symbol No.	Part No.	Description
R429	22584151	150 ohm
R430	22584151	150 ohm
R431	22584273	27K ohm
R432	22584273	27K ohm
R433	22584562	5.6K ohm
R434	22584562	5.6K ohm
R435	22545682	6.8K ohm (PRC)
R436	22545682	6.8K ohm (PRC)
R437	22545102	1K ohm (PRC)
R438	22545102	1K ohm (PRC)
R439	22545102	1K ohm (PRC)
R440	22545102	1K ohm (PRC)
R441	22545561	560 ohm (PRC)
R442	22584680	68 ohm
R443	22545102	1K ohm (PRC)
R444	22584334	330K ohm
R501	22545102	1K ohm (PRC)
R502	22545682	6.8K ohm (PRC)
R503	22545680	680 ohm (PRC)
R504	22584120	12 ohm
R506	22584680	68 ohm
R507	22584470	47 ohm
R508	22584120	12 ohm
R701	22584183	18K ohm
R702	22584104	100K ohm
R703	22545102	1K ohm (PRC)
R704	22545103	10K ohm (PRC)
R705	22584101	100 ohm
R706	22584681	680 ohm
R707	22545102	1K ohm (PRC)
R708	22545103	10K ohm (PRC)
R709	22584151	150 ohm
R710	22584274	270K ohm
R711	22545103	10K ohm (PRC)
R712	22584104	100K ohm
R713	22545102	1K ohm (PRC)
R714	22545102	1K ohm (PRC)
R715	22545681	680 ohm (PRC)
R716	22545102	1K ohm
R717	22545102	1K ohm
R718	22545102	1K ohm
R719	22545102	1K ohm
R720	22545102	1K ohm
R721	22545102	1K ohm
R722	22584102	1K ohm
R723	22545103	10K ohm (PRC)
R724	22545102	1K ohm (PRC)
⚠ R901	22500273	3.3 ohm, Fusible
R902	22545221	220 ohm (PRC)
R903	22545682	6.8K ohm (PRC)
R904	22584562	5.6K ohm

Symbol No.	Part No.	Description
		ACCESSORIES
⚠ AC01	22138430	AC Adaptor, TE
⚠ AC01	22138431	AC Adaptor, TU
AC02	22903401	Owner's Manual

TOSHIBA CORPORATION
2-1, GINZA 5-CHOME, CHUO-KU, TOKYO 104, JAPAN

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